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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/748,443

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Michael J. Christie

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MAGINOT, MOORE & BECK, LLP

CHASE TOWER

111 MONUMENT CIRCLE

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INDIANAPOLIS, IN 46204

EXAMINER

CUMBERLEDGE, JERRY L

ART UNIT

PAPER NUMBER

3733

NOTIFICATION DATE

DELIVERY MODE

07/09/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Office Action Summary	Application No. 10/748,443	Applicant(s) CHRISTIE ET AL.	
	Examiner JERRY CUMBERLEDGE	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Freeman et al. (US Pat. 4,738,256).

Freeman discloses an apparatus for creating a cavity in a bone (Fig. 15), said cavity (I) having a cross section which has a generally triangular profile having a first side generally parallel with an axis of the bone and a second side forming an acute angle with the first side, and (ii) being contiguous with a pre-existing conical cavity in the bone, said apparatus comprising: a drive shaft having an axis (Fig. 15, ref. 34) , a proximal end (Fig. 15) configured for coupling to a drive means and a distal end (Fig. 15) configured to form a portion of a drive joint for coupling the drive shaft to a cutter; a frame for carrying a cutter (Fig. 15, ref. 20) , the frame including a frame shaft (Fig. 15, ref. 37) having a longitudinal axis (Fig. 15) and a cutter mount (Fig. 15) for mounting a cutter at a first angle approximating the acute angle with respect to the frame shaft (Fig. 15), the mount including a bearing bracket (Fig. 15, ref. 23) extending laterally from the frame shaft to a bearing (Fig. 15, above reference 26) configured to receive a portion of a cutter (Fig. 15) and maintain the received cutter oriented at the first angle during rotation (Fig. 15); a cutter for cutting said cavity (Fig. 15), the cutter having a head (Fig.

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15, ref. 26) configured to form a portion of a drive joint for coupling the cutter to a drive shaft; and, wherein the drive shaft is coupled to the cutter to form the drive joint (Fig. 15), the cutter is received in the mount at the first angle (Fig. 15) and the axis of the drive shaft forms a second angle with the longitudinal axis (Fig. 15), the second angle being less than the first angle (Fig. 15). The axis of the drive shaft is substantially parallel to the longitudinal axis of the frame shaft (Fig. 15). The drive shaft and sleeve are mounted to the frame to move relative thereto to facilitate loading and removal of a cutter (Fig. 15). A plate (Fig. 15, top of ref. 53) mounted substantially perpendicular to the longitudinal axis of the frame shaft and configured to transfer forces applied to the plate to the frame (Fig. 15). Further comprising a miller shell (Fig. 15, near ref. 37) for registering the apparatus with the pre-existing conical cavity, the miller shell having a longitudinal axis (Fig. 15), an external surface a portion of which engages the wall of the pre-existing conical cavity (Fig. 15). The cutter comprises a cutting surface having an outer diameter and a bearing surface at one end of the cutting surface having an outer diameter larger than the outer diameter of the cutting surface and wherein the bearing for receiving the cutter comprises a bearing surface for mating with said bearing surface of the cutter.

Freeman discloses an apparatus for creating a cavity in a bone, said cavity (i) having a cross section which has a generally triangular profile having a first side generally parallel with an axis of the bone and a second side forming an acute angle with the first side, and (ii) being contiguous with a pre-existing conical cavity in the bone, said apparatus comprising: a drive shaft (Fig. 15, ref. 34) having an axis (Fig. 15), a

proximal end (Fig. 15) configured for coupling to a drive means and a distal end (Fig. 15) configured to form a portion of a universal coupling (Fig. 15, below ref. 34) for coupling the drive shaft to a cutter (Fig. 15); a frame for carrying a cutter (Fig. 15, ref. 20), the frame including a frame shaft (Fig. 15, ref. 20) having a longitudinal axis and a cutter mount (Fig. 15) for mounting a cutter at a first angle approximating the acute angle with respect to the frame shaft (Fig. 15), the mount including a bearing bracket (Fig. 15, ref. 23) extending laterally from the frame shaft to a bearing configured to receive a portion of a cutter (Fig. 15) and maintain the received cutter oriented at the first angle during rotation (Fig. 15); a cutter for cutting said cavity (Fig. 15, ref. 26), the cutter having a head (Fig. 15, near above ref. 26) configured to form a portion of the universal coupling for coupling the cutter to a drive shaft (Fig. 15); and, wherein the drive shaft is coupled to the cutter to form the universal coupling (Fig. 15), the cutter is received in the mount at the first angle (Fig. 15) and the axis of the drive shaft forms a second angle with the longitudinal axis Fig. 15), the second angle being less than the first angle (Fig. 15). The axis of the drive shaft is substantially parallel to the longitudinal axis of the frame shaft (Fig. 15).

Claims 10-12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Richelsoph (US Pat. 5,342,363).

Richelsoph discloses an apparatus for creating a cavity in a bone for receiving a prosthesis which has a conical portion and a projection of a generally triangular profile, said apparatus comprising: a shell (Fig. 6, ref. 58) comprising a conical portion which

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defines a longitudinal axis (Fig. 6) and a frame shaft receiving cavity for receiving a frame (column 4, lines 4-9); a frame having a frame shaft (Fig. 6, ref. 33) , a drive shaft (Fig. 6, ref. 86) and a shield (Fig. 6, ref. 40), the frame shaft being received by the shaft-receiving cavity (Fig. 6) and being movable with respect to the shell along the longitudinal axis (column 4, lines 4-9), said frame configured to carry a cutter (Fig. 6, ref. 84) disposed at an acute angle relative to the longitudinal axis, the drive shaft being disposed at a drive shaft angle relative to the longitudinal axis less than the acute angle (Fig. 6) and the drive shaft being configured at one end to couple to and drive the cutter (Fig. 6) and the shield being disposed about portions of the drive shaft adjacent the one end (Fig. 6, near ref. 40); and a cutter (Fig. 6, ref. 84)for cutting a cavity having a generally triangular profile, said cutter being carried by said frame and being configured to mate with and be driven by the drive shaft (Fig. 6). The cutter and the frame include mating bearing surfaces (Fig. 6, there are multiple surfaces). The frame includes a drive shaft bracket for maintaining the orientation of the drive shaft relative to the frame shaft (Fig. 6, ref. 32). The cutter and the drive shaft are configured to cooperate to form a pinned-sleeve shaft coupling (Fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6, 9 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (US Pat. 4,738,256) in view of Sederholm et al. (US Pat. 5,643,271).

Freeman et al. disclose the claimed invention except for a sleeve disposed about portions of the drive shaft adjacent the cutter.

Sederholm et al. discloses a cutting device (abstract) that comprises a sleeve surrounding a drive shaft, in order to offer protection (column 3, lines 38-40) (*e.g.* to separate the surrounding tissue from the driver).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have constructed the device of Freeman et al. with a protective sleeve around the drive shaft, in order to offer protection (column 3, lines 38-40) (*e.g.* to separate the surrounding tissue from the driver).

With regard to claims 4 and 22, Freeman in view of Sederholm disclose the claimed invention except for a second (drive shaft) bracket. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the assembly of device of Freeman et al. with another bracket, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. (US Pat. 4,738,256) in view of Sederholm et al. (US Pat. 5,643,271) in view of Richelsoph (US Pat. 5,342,363).

Freeman et al. in view of Sederholm et al. disclose the claimed invention except for a shell configured to receive the frame and allowing the frame to move along the longitudinal axis and indicators for indicating the longitudinal location of the miller frame relative to the miller shell.

Richelsoph discloses a frame (Fig. 6, ref. 30) mounted in a shell (Fig. 6, near ref. 58)(column 4, lines 4-9) which increases versatility of the device and allows for a quick disconnect between devices used in the surgical procedure (column 4, lines 4-42). Richelsoph further discloses indicators (column 4, lines 64-68)(column 5, lines 1-35) which allows for precise location of the portions of the device relative to each other (column 4, lines 64-68)(column 5, lines 1-35).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have constructed the device of Freeman et al. in view of Sederholm et al. with the shell and frame being movable relative to each other in order to increase versatility of the device and allow for a quick disconnect between devices used in the surgical procedure (column 4, lines 4-42). Furthermore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have constructed the device with indicators, in order to allow for precise location of portions of the device relative to each other (column 4, lines 64-68)(column 5, lines 1-35).

Claims 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Richelsoph (US Pat. 5,342,363) in view of Freeman et al. (US Pat. 4,738,256).

Richelsoph discloses the claimed invention except for the drive shaft is maintained in an orientation substantially parallel to the frame shaft and the drive shaft includes a slotted end forming forks.

Freeman discloses a cutting system that comprises a frame (Fig. 15, ref. 20) with a shaft (Fig. 15, ref. 20) and a drive shaft (Fig. 15, ref. 34), the drive shaft being oriented substantially parallel to the frame shaft (Fig. 15) and the drive shaft comprising a universal joint (Fig. 15, above ref. 26), that comprises forks on the end (Fig. 15)(column 5, lines 16-20). This arrangement provides increased versatility of the device as it allows the shaft to be adjusted to any suitable angle to allow convenient rotation of the cutting device (column 5, lines 16-20).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have constructed the device of Richelsoph with the drive shaft being maintained in an orientation substantially parallel to the frame shaft and the drive shaft including a slotted end forming forks as taught by Freeman, in order to provide increased versatility of the device as it allows the shaft to be adjusted to any suitable angle to allow convenient rotation of the cutting device (column 5, lines 16-20).

Response to Arguments

Applicant's arguments with respect to claims 1-15 and 19-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see attached PTO-892.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY CUMBERLEDGE whose telephone number is (571)272-2289. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. C./

Examiner, Art Unit 3733

/Cris L. Rodriguez/

Supervisory Patent Examiner, Art Unit 3732

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